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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,302	12/02/2003	Akihiro Horii	P/16-347 DIV	5903
2352	7590	03/14/2006	EXAMINER	
OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403			LEE, HWA S	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/727,302

Applicant(s)

HORII ET AL.

Examiner

Andrew Hwa S. Lee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7 and 82-87 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 82 is/are rejected.
- 7) ☒ Claim(s) 2-5, 7 and 83-87 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/30/05.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

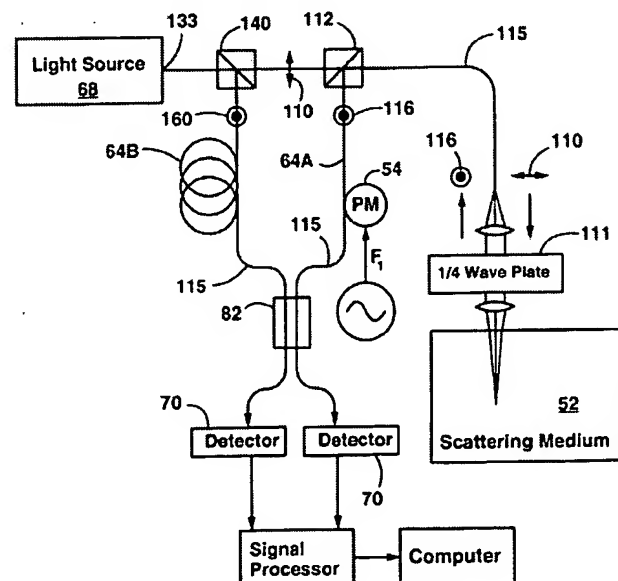
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1 and 82** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mandella et al (US 6,201,608).

Mandella et al show ("Mandella" hereinafter) show a method and apparatus for measuring optical reflectivity and imaging through a scattering medium comprising:

a light source (68) for supplying low coherence light to irradiate an object so that tomographic images of the object can be constructed based on returning light reflected or scattered from the object;

a light irradiating/receiving unit (Fig. 8a-c) for irradiating the object with said low coherence light, and for



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- receiving said returning light, said light irradiating/receiving unit including a first optical scanning block capable of scanning said object at least one-dimensionally in a direction of light reception or irradiation;
- a first light path member (lens, GRIN lens) over which a portion of the coherence light is propagated to said object and said returning light is propagated to said light irradiating/receiving unit;
- a second light path member over which a further portion of the low coherence light is propagated to provide a reference beam;
- a first optical branching unit (140), interposed between light source and said first optical scanning block, for branching the low coherence light supplied from said light source into said first optical scanning block and said second light path member;
- a second optical branching unit, included in said first optical scanning block, for branching out the returning light from said first optical scanning block;
- a third light path member over which the returning light branched out by said second optical branching unit is propagated;
- a coupling unit (82) for coupling the reference light beam propagated over said second light path member and the returning light propagated over said third light path member to create interference between the reference beam and the returning light;
- a detection unit (70) for detecting the interference caused by said coupling unit to produce an interfering signal;
- an optical length variation unit (64B, 54), coupled to one of said second and third light path members, for varying at least one of a phase delay and a group delay of light

between an incident light path and an emitted light path (fibers connected to 64B, 54), said optical length variation unit including:

a movable light-transmissive optical element (58, 102, and figure 8c) interposed between the incident light path and emitted light path, and

a drive mechanism (200, 202, 208)operative to impart cyclic motion to the light-transmissive optical element so that a point at which light in the second and third light paths interfere is scanned in the optical-axis direction as the light-transmissive optical element moves; and

an image production unit (signal processor, computer) for processing the interfering signal detected by said detection unit to produce a tomographic image of said object.

Although Mandella does not expressly state as such but the stretching of the optical fiber by the piezoelectric fiber optic stretcher (column 6, lines 37+) would cause the fiber optic which is a light-transmissive optical element to stretch (move) so that a point at which light in the second and third light paths interfere is [of interference can be] scanned in the optical-axis direction as the light-transmissive optical element moves.

Allowable Subject Matter

Claims 2-5, 7, and 83-87 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

2. Applicant's arguments with respect to claims 1-5, 7, and 82-87 have been considered but are moot in view of the new ground(s) of rejection. column 6, lines 37+

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Hwa S. Lee whose telephone number is 571-272-2419. The examiner can normally be reached on Tue-Fr.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley Jr. can be reached on 571-272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Andrew Hwa Lee
Primary Examiner
Art Unit 2877